

PATENT COOPERATION TREATY

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From the
 INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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RECEIVED

29 SEP. 2004

Zacco Denmark A/S

PCT
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NOTIFICATION OF TRANSMITTAL OF
 THE INTERNATIONAL PRELIMINARY
 REPORT ON PATENTABILITY

(PCT Rule 71.1)

Date of mailing
 (day/month/year)

28.09.2004

Applicant's or agent's file reference
 P200200947WO

IMPORTANT NOTIFICATION

International application No.
 PCT/DK 03/00246

International filing date (day/month/year)
 11.04.2003

Priority date (day/month/year)
 14.06.2002

Applicant
 OILCARE APS et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international
 preliminary examining authority:



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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P200200947WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/DK 03/00246	International filing date (day/month/year) 11.04.2003	Priority date (day/month/year) 14.06.2002
International Patent Classification (IPC) or both national classification and IPC C10M175/00		
Applicant OILCARE APS et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 06.08.2003	Date of completion of this report 28.09.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Plaka, T Telephone No. +31 70 340-2325 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/DK 03/00246

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-12 as originally filed

Claims, Numbers

1-34 received on 27.04.2004 with letter of 27.04.2004

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/DK 03/00246

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-34
	No: Claims	
Inventive step (IS)	Yes: Claims	1-34
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-34
	No: Claims	

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: EP-A-0 381 355 (FILTERCORP INC) 8 August 1990 (1990-08-08)

Document D1, which is considered to represent the closest prior art, discloses a process and associated apparatus for purifying used cooking oil comprising prefiltering the oil and then passing the prefiltered oil through a filtering unit in which the filtering medium comprises a pad made of cellulose fibres and carbon particles adhered to each other by a binder. The fibre pad is supported on a metal net. A pump is used to force the oil through the treatment steps. The carbon particles are used for the removal of the substances giving odour and colour to the used oil.

The subject-matter of process claim 1 differs from the process of D1 in that a) it is aimed for the purification of waste oil or rerefined oil from mineral or synthetic oil and b) in that the temperature of the prefiltrated oil is lowered before passing through the filtering unit.

The subject-matter of apparatus claim 18 differs from the apparatus of D1 in that cooling means are provided for cooling the prefiltrated oil.

The subject-matter of claims 1 and 18 is therefore new (Article 33(2) PCT).

Cooling the prefiltrated oil before entering the filtering unit was found to result in better purification in the case of waste and re-refined oils. Lowering the temperature provides a better contact between the filter media and the fluid, thus allowing the fluid to absorb/filter off a larger amount of the residues. There is no indication in the prior art of such an effect and given that the prior art focus on elevation of the temperature, it is most unexpected that the solution to the problem is found by lowering the temperature.

Therefore, the subject-matter of claims 1 and 18 involves an inventive step (Article 33(3) PCT)

Claims 2 to 17 and 19 to 33 are dependent on claims 1 and 18 respectively and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Use claim 34 is also novel and inventive as it refers to the use of the novel and inventive apparatus of the invention.

Re Item VII

Certain defects in the international application

Independent claims 1 and 18 are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

Re Item VIII

Certain observations on the international application

1.

It is clear from the description on page 7 that the prefiltrated oil is cooled if it is in a heated condition when it reaches the filtering unit. It is therefore essential to the definition of the invention that the oil is cooled to a temperature of 10-30°C.

Since independent claim 1 does not contain this feature, it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

2.

Part of the description does not fall within the scope of the claims. This inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear, Article 6 PCT.